

## Mechanics Corner

TIRED OR RETIRED? EDITOR MICHAEL BLADON GIVES THE LOWDOWN ON RUBBER ...

*There really is "so much riding on your tires."*

**C**harles Goodyear was the inventor who found a way to make rubber functional. Before he made his discovery, rubber changed with temperature – cold made it brittle and heat made it melt. Goodyear attempted many ways and mixtures of heat, crude rubber and sulphur. By chance, he finally discovered vulcanization (named after the god of fire, Vulcan). Goodyear had found a way to make rubber hard, strong and elastic. Patented in 1844, his process is still used today. Approximately 75% of the world's rubber is used in the making of tires and inner tubes. The manufacture of these tires goes

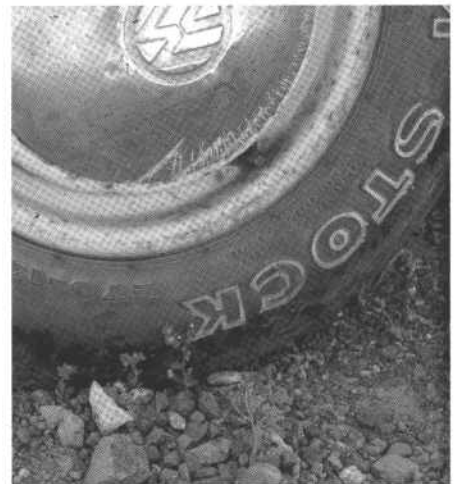
back to 1845 when a patent was taken out in England on air-inflated tires by Robert W. Thompson.

### Rubber Tires

Use of proper air pressure is the most important factor in the satisfactory performance and maintenance of tractor, mower and implement tires. In cars the "right amount" of air for your tires is specified by the vehicle manufacturer and is shown on the vehicle door edge, door post, glove compartment, fuel door or in the owner's manual.

Underinflation will damage the cord body of the tire. It will cause a series of

diagonal breaks in the cord fabric in the sidewall area. If the tire buckles or wrinkles, the air pressure should be increased to the point where the sidewalls remain smooth while the tire is in service. Underinflation may also allow the tire to slip on the rim, which in turn will tear off the valve stem of the tube. Overinflation should also be avoided. It reduces traction which results in excessive slippage and causes tires to wear more rapidly.



### Check Air Pressure Frequently

A tire can lose up to half its air pressure and still not appear to be flat! Air pressure should be checked every 2 to 3 weeks and should not be allowed to drop below recommended rates. When you check the air pressure, ensure that the tires are cool, that they are not hot from driving even a kilometre. It is normal for tires to heat up and the air pressure inside to go up as you drive. Never "bleed" or reduce air pressure when tires are hot. A special low-pressure gauge, with one-pound graduations, is necessary to get accurate inflation. This gauge should be checked periodically for accuracy, as it may become inaccurate over time and a correction in the reading might have to be made. A special air-water inflation gauge is available for testing

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tires filled with water, calcium or an antifreeze solution. Always use a valve cap to prevent loss of air.

### Tread Wear and Cutting Due to Spinning

Tractor tires with insufficient wheel weights or excessive inflation pressure will wear the tread bars rough, or will snag and cut the bars when subjected to severe service on abrasive surfaces. Sudden engagement of the clutch in starting also causes this type of tread wear. Tread bars are cut and worn on the leading or forward edge. Addition of wheel weights, adjustment of air pressure to recommendations, decreasing of draft load, and proper operating procedures will remedy this condition.

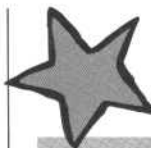
### Repairs

Sometimes a tire may be damaged and require repair. It is advisable to inspect tires before starting each morning as a part of the daily maintenance routine. There are several types of injuries which may require different treatment. Sidewall or tread rubber may be cut through exposing the fabric. If a tire is punctured by a large nail or something similar, a rubber repair plug should be inserted from the inside. The tire may be cut from running over a sharp object, or it is possible to break the cord body of the tire when it strikes an obstruction on the ground. While an operator may be able to make repairs to the tire temporarily, a qualified mechanic or tire repair service should be called for a permanent repair.

Where car tires are concerned, the Rubber Manufacturers Association of Washington, D.C. has an interesting way to promote tire care. Their advertisement reads, Be Tire Smart, Play Your PART. The letters denote pressure, alignment, rotation and tread. Interested in more tire trivia? Check out their web site at [www.rma.org](http://www.rma.org). ♦

### Sources

- *Greaseless guide to car care*, Mary Jackson, 1995
- The Rubber Manufacturers Association



## ORFA/STA Joint Education Workshop

OCTOBER 23, 2002, MOLD-MASTERS SPORTSPLEX, HALTON HILLS

AGENDA	ACTIVITIES
7:00 – 8:00 am	Corporate/Vendor Display Set-up
8:00 – 9:00 am	Registration/Refreshments & Meet Exhibitors
9:00 – 10:30 am	Session #1: Integrated Pest Management
10:30 – 11:00 am	Refreshment Break
11:00 – 12:30 pm	Session #2: Maximizing Your Equipment
12:30 – 1:00 pm	Lunch

### Integrated Pest Management

As communities become more aware, more concerned and wanting more of a say in the care and control of their environment, municipalities are having to answer some tough questions. Whether the driving force is political or ecological, the debate will take place and resolutions will be reached. Where does the quality of turf fit in? Through proper turf management techniques, you can give the grass a fighting chance against weeds and insects. Alternatives to chemical weed and insect control will be discussed.

### Maximizing Your Equipment

When starting up an IPM Program, the investment in equipment will seem large. However, by getting to know the equipment available and what it can do year round you can maximize your budget dollars by multi-tasking your purchases. With so many types of aerators, topdressing and overseeding, which one is right for you? Know the task, know the equipment, know its abilities.

### Display Information

In addition to delegates, both ORFA and STA Corporate Members are cordially invited to attend the Regional Information Session on a first come, first serve basis to display products and/or services. NOTE: Please keep in mind that this is a parks and sports turf session and you should consider this to determine whether or not your company's products/services will fit the mix.

*There's still room ... call today!*

### Registration Information

Further details and a registration form may be obtained at [www.orfa.com](http://www.orfa.com) (*Calendar*) or by contacting: 1) *Ontario Recreation Facilities Association Inc.* at 402-1185 Eglinton Avenue East, North York, ON M3C 3C6, Phone: 416.426.7062, Fax: 416.426.7385 Email: [info@orfa.com](mailto:info@orfa.com) or 2) *Sports Turf Association*, 328 Victoria Road South, Guelph, ON N1H 6H8, Phone: 519.763.9431, Fax: 519.766.1704. Email: [sta@gti.uoguelph.ca](mailto:sta@gti.uoguelph.ca).

## We've Moved! Note our New Web Address ...

The Sports Turf Association has commenced construction of its new, much improved and more dynamic website. The first step – registration of our new domain name [www.sportsturfassociation.com](http://www.sportsturfassociation.com), an easier address to remember and much simpler for new visitors to locate! For the time being you'll be accessing the old site via the new address. We'll let you know when the new site is up and running so you can pay us a visit at our new home!